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## Cathode Lens Microscopy for Nanoscience

This issue of the IBM journal describes recent advances in the field of nanoscience, with an emphasis on cathode lens-based microscopy methods, including LEEM (low-energy electron microscopy), PEEM (photoemission electron microscopy), and other related analytical approaches. Papers highlight scientific advances and instrumental developments on topics that include thin films, organic films, surface chemistry, magnetism, time-resolved methods, and various novel applications of microscopy in material science.

### Preface

R. M. Tromp and J. B. Hannon, *Guest Editors*

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**1 Low-energy electron microscopy and spectroscopy with ESCHER: Status and prospects**

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**2 Scanning transmission low-energy electron microscopy**

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**3 Laplacian and caustic imaging theories of MEM work-function contrast**

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**4 Laser-excited PEEM using a fully tunable fs-laser system**

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